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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,570	02/11/2002	Akira Okawa	FUJI 19.420	5131
26304	7590	09/21/2006	EXAMINER	
KATTEN MUCHIN ROSENMAN LLP			QURESHI, AFSAR M	
575 MADISON AVENUE			ART UNIT	
NEW YORK, NY 10022-2585			PAPER NUMBER	
			2616	

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/073,570

Applicant(s)

OKAWA ET AL.

Examiner

Afsar M. Qureshi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

1. This action is responsive to amendment received on 6/26/2006. The amendment to claims is made of record.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claim objection for claims 3 and 4 is withdrawn in light of amendments.
4. Examiner maintains the rejection of claim 2, under 35 U.S.C. 112 second paragraph.
5. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, the applicant has not clearly indicated as to how the input signal is "stored in an order of the first memory part, the second memory part, and the third memory part." The claim as recited is very broad. It is suggested that the subject matter of Specification page 9, lines 18-24 be accommodated in the claim language in support of claimed subject matter, lines 6-7.

The examiner will prosecute this claim while interpreting in its broadest term, as simply storing an input signal into memory.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kim (US 6,151,334).

- **Considering claim 1**, Kim discloses plurality of input interfaces for input signals and a multiplexer 48 (see figures 2 and 3). Kim further discloses a device for processing

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data signals comprising: a storing part storing an input signal (column 2, lines 40-41), an extracting part extracting said data signals included in said input signals from said storing part (column 2, lines 56-58) and outputting said data signals at a desired output speed (column 2, lines 29-30, where providing high speed data transfer inherently means outputting at a desired speed), and wherein said extracting part outputs said data signals based on storage information (control characters) of said input signal (column 2, lines 63-66).

It should be noted that this device as taught by the applicant could be considered a common de-multiplexer. A de-multiplexer stores incoming data (storing part) and extracts specific parts of the data based on "storage information," just as applicant's device claims.

7. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Brown (US 6,721,295)

- Kim has the device of claim 1 with a storing part but does not disclose what the storing part includes. Brown teaches a system for high data communication systems that uses three memory parts, or buffers (Figure 5) where data, and thus input, is stored (as is the purpose of a memory buffer). In Brown, the third memory buffer is used for signaling information (or storage information, as loosely recited by the applicant). In view of the broad limitations as set forth by the applicant, the third memory buffer can be the "second memory part" of applicant's claim (and thus Brown's first and second memory buffers are now applicant's first and third memory parts). It would have been obvious to one skilled in the art at the time of the invention to include in Kim's data

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processing device the storing part of Brown in order to minimize or even reduce computational complexity and hardware requirements (column 1, lines 36-39).

8. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Matsunaga (US 6,504,855)

- **Considering claims 3 and 4**, Kim has a device for processing data signals as described in claim 1. As mentioned in the rejection of claim 1, applicant's language describes a de-multiplexer, a device Kim similarly teaches. Kim discloses that if there are no data words (empty release) the scheduler sends a control signal (see col. 8, lines 26-28). Kim, however, does not teach the method of dealing with input and output signals of varying speeds. Matsunaga, in the same field of endeavor, discloses a device where the extracting part (encoder) outputs data signals in which an invalid data signal is inserted/included to/in the input signal (column 2, lines 38-44 and column 6, lines 35-46). It would thus have been obvious to one skilled in the art at the time of the invention to use Kim's de-multiplexer in Matsunaga's device for extracting including data signals to be processed by the encoder and buffer.

- **Considering claim 5**, as discussed above, Matsunaga's device is able to recognize valid vs. invalid data. Inherently, a monitoring part must exist in order to make this distinction. Furthermore, as taught by the applicant, a data determining part gives a determination notice to input invalid data. Therefore, as loosely recited by the applicant, the encoders of Matsunaga have a data determining part that serves the same function of deciding to input invalid data. It is thus obvious to one skilled in the art that Matsunaga's device also comprises a monitoring part monitoring said data signals

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(determination of validity of data bytes), a data determining part determining said data signals based on a notice of said storage validity of said data signals from said monitoring part, an invalid data generating part generating invalid data to insert into said data signal, whereas said invalid data generating part inserts said invalid data to said input signal in response to a determination notice from said data determining part (column 2, lines 38-44).

9. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Knapp (US 6,874,048).

- Kim has the device of claim 1 with an extracting part but does not disclose what the extracting part comprises. Knapp teaches a method and device in a communication system for sending data that supports multiple forms of data (column 2, lines 34-35). Knapp further discloses a device and method in which a NO DATA command is used where the controller will ignore the data received (column 15, line 59-60). Inherently, by ignoring data so that it is not processed, the same function is achieved as applicant's deletion of no-data codes. Therefore, a device is disclosed which comprises a monitoring part monitoring data signals (controller), a no-data code determining part (controller) determining a no-data code and a deleting part (or ignoring part) deleting said no-data code included in said data signal. It would have been obvious to one skilled in the art at the of the invention to include in Kim's data processing device the device of Knapp so as to allow for a better and more flexible communications system capable of supporting multiple forms of streaming and non-streaming data.

***Response to Arguments***

10. Applicant's arguments, filed 6/26/2006, have been fully considered but they are not persuasive. Applicant argued that Kim '334 fails to disclose the amended limitations of multiplexing circuit and plurality of input signals from plurality of input interfaces. However, Examiner contends that these limitations are well defined in said reference (see figures 2 and 3). The Applicant concluded that Kim teaches plurality of multiplexers 48 corresponding to plurality of input data signals. However, inherently, and broadly interpreting, a multiplexer allows two or more signals to pass over one communication circuit.

Applicant also argued that the combination of Kim and Matsunaga failed to disclose limitations set forth in claims 3-5. Examiner disagrees with these arguments. It is noted that the references of Kim and Matsunaga are analogous art and they are in the same field of endeavor. It is recognized that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

As to rejection of claim 2, under 35 U.S.C. 112 second paragraph, Examiner contends that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Genus*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

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11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Afsar M. Qureshi whose telephone number is (571) 272 3178. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on (571) 272 7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**AFSAR QURESHI**  
**PRIMARY EXAMINER**

9/15/2006